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SEQUENCE LISTING

<110> Chesnut, Jonathan D.
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Leong, Louis
Madden, Knut
Gleeson, Martin
Fan, James
Brasch, Michael A.
Cheo, David
Hartley, James L.
Byrd, Devon R.N.
Temple, Gary F.

<120> Methods and Compositions for Synthesis of Nucleic Acid Molecules Using Multiple Recognition Sites

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<140> 10/792,035

<141> 2004-03-04

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<151> 2003-06-05

<150> US 60/385,613
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<222> (958)..(966)
<223> N can be any nucleotide: a, t, c, g

<400> 72

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<212> DNA
<213> artificial sequence

<220>
<223> Nucleotide sequence of plasmid pcDNA6.2/V5/GWD-TOPO

<220>
<221> unsure
<222> (958) .. (966)
<223> N can be any nucleotide: a, t, c, g

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gccacacgtac	gtc					5173

<210> 74
<211> 69
<212> DNA
<213> artificial sequence

<220>
<223> Partial sequence of pENTR/SD-dTOPO

<220>
<221> unsure
<222> (64)..(69)
<223> N can be any nucleotide: a, t, c, g

<400> 74
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atgnnnnnn 69

<210> 75
<211> 52
<212> DNA
<213> artificial sequence

<220>
<223> Nucleotide sequence of TOPO-D71

<400> 75
ggccgccttg tttaacttta agaaggagcc cttcaccgac tatgtacagtt g 52

<210> 76
<211> 31
<212> DNA
<213> artificial sequence

<220>
<223> Nucleotide sequence of TOPO-D73

<400> 76
ggccgcggccccc ttcaccgact atgtacagtt g 31

<210> 77
<211> 28
<212> DNA
<213> artificial sequence

<220>
<223> Nucleotide sequence of TOPO-D75

<400> 77
cgcgccccacc cttgacatag tacagttg 28

<210> 78
<211> 14
<212> PRT
<213> artificial sequence

<220>
<223> Partial amino acid sequence of pENTR-dTOPO and
pcDNAGW-dTOPO

<400> 78

Leu Tyr Lys Lys Ala Gly Ser Ala Ala Ala Pro Phe Thr Met
1 5 10

<210> 79
<211> 13
<212> PRT
<213> artificial sequence

<220>
<223> Partial amino acid sequence of pENTR/SD-dTOPO,
pENTR-dTOPO, and pcDNAGW-dTOPO

<400> 79

Lys Gly Gly Arg Ala Asp Pro Ala Phe Leu Tyr Lys Val
1 5 10

<210> 80
<211> 15
<212> DNA
<213> artificial sequence

<220>
<223> Product of binding a topoisomerase to part of a nucleic
acid molecule

<220>
<221> unsure
<222> (13)..(15)
<223> N can be any nucleotide: a, t, c, g

<400> 80
cccttcacca tgnnn 15

<210> 81
<211> 15
<212> DNA
<213> Unknown

<220>
<223> 15 bp core region of the wildtype att site

<400> 81
gcttttttat actaa 15

<210> 82
<211> 21
<212> DNA
<213> Unknown

<220>
<223> att site

<400> 82
caactttttt atacaaaagtt g 21

<210> 83
<211> 25
<212> DNA
<213> Unknown

<220>
<223> attB1 site

<400> 83
agcctgcttt tttgtacaaa cttgt 25

<210> 84
<211> 233
<212> DNA
<213> Unknown

<220>
<223> attP1 site

<400> 84
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ttttacgttt ctcgttcagc tttttgtac aaagttggca ttataaaaaaa gcattgctca 180
tcaatttgtt gcaacgaaca ggtcaactatc agtcaaaaata aaatcattat ttg 233

<210> 85
<211> 100
<212> DNA
<213> Unknown

<220>
<223> attL1 site

<400> 85
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tgcttttta taatgccaac tttgtacaaa aaagcaggct 100

<210> 86
<211> 125
<212> DNA
<213> Unknown

<220>
<223> attR1 site

<400> 86
acaagttgt acaaaaaagc tgaacgagaa acgtaaaatg atataaatat caatatatta 60
aatttagattt tgcataaaaa acagactaca taatactgta aaacacaaca tatccagtca 120
ctatg 125

<210> 87
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24

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<400> 128
ggaggagcaa tgatottgat cttc 24

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cacggatccg ctcaccatgg atgatgatat cg 33

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<210> 136
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<220>
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<400> 136
gttccgaagg g 11

<210> 137
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ggcctaaagg g 11

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ctgatacatg tc 12

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<223> n is a, c, g, or t

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cgggggaagt gg 12

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ggccaagggc cctt

14

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gttccgaagg g

11

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16

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<400> 147
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16

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ggcctaaagg g

11